

## Management Functions Related to the Radiation Protection Program

### Roles and Responsibilities

#### Headquarters Responsibility

On March 17, 1995, the Deputy Assistant Secretary for Military Application and Stockpile Support initiated delegation of responsibilities from the Headquarters Office of Nuclear Weapons Management to the Albuquerque Operations Office. Defense Programs retained responsibility for policy and the associated DOE orders. Responsibility for radiation protection and implementation of external regulations was delegated to the Albuquerque Operations Office. Some responsibilities, such as Transportation Safety Analysis Report coordination and approval and Transportation Safety Evaluation Report preparation, were designated as shared between Headquarters and Albuquerque. Defense Programs is not currently involved in any oversight activities related to TSD operations.

#### Operations Office Responsibility

Figure 3 shows a simplified view of the AL and TSD organizational elements that have key roles in managing TSD operations.

The TSD Assurance Branch is responsible for TSD environment, safety and health programs, including the radiation protection program as it pertains to TSD operations. This Branch is responsible for ensuring that the TSD radiation protection program is implemented in accordance with applicable requirements. The Senior Safety Engineer within the TSD Assurance Branch serves as the manager of the TSD radiation protection program. This individual is responsible for the review and distribution of personnel radiation exposure information and

scheduling and performance of internal assessments of TSD and contractor operations, and also serves as point of contact within TSD for radiation protection matters. TSD radiological training is administered by the Training Section within the TSD Support Branch.

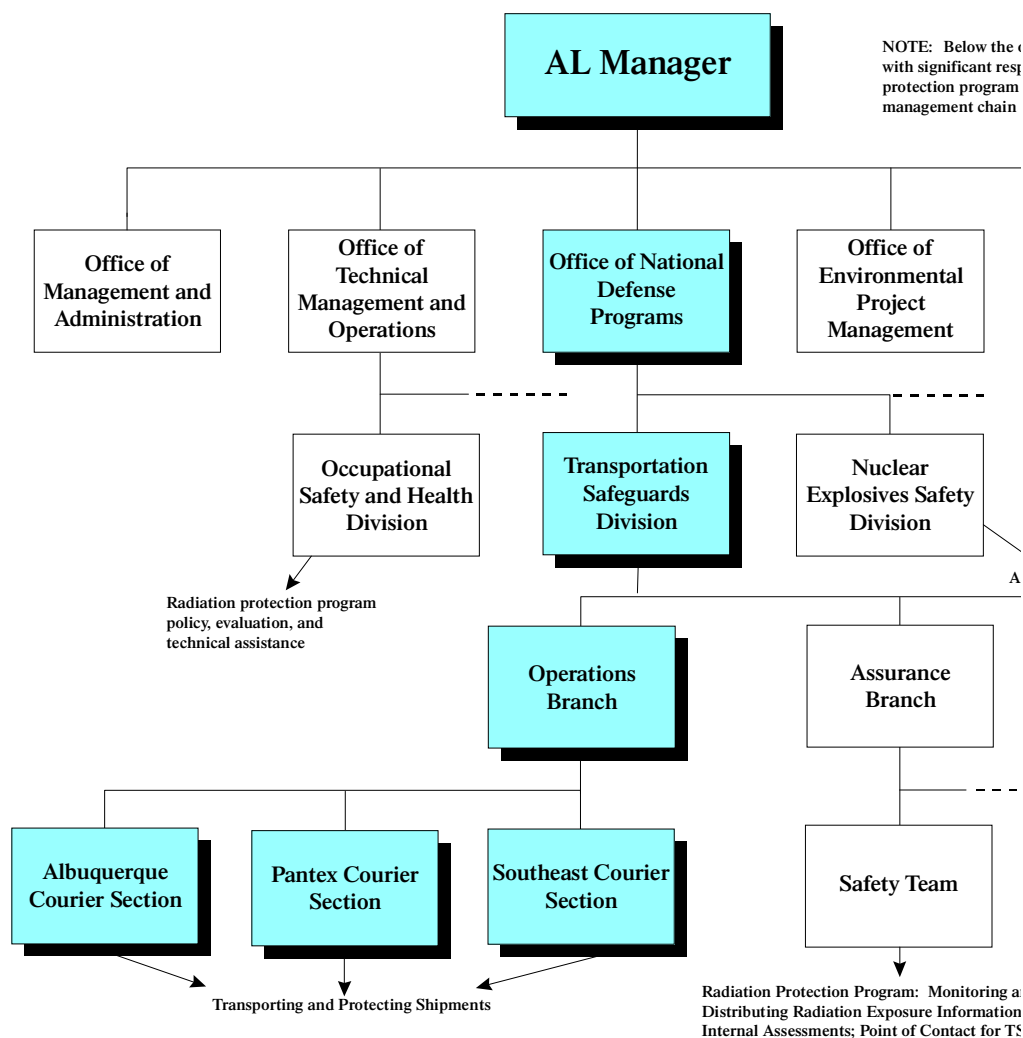
The Occupational Safety and Health Division (OSHD), within the AL Operations Office, Office of Technical Management and Operations (OTMO), is responsible for conducting appraisals of TSD and AL contractor operations for compliance with applicable DOE orders, regulations, and specific radiation protection program requirements on radiological protection. OSHD also provides additional technical support to TSD for the radiation protection and dosimetry programs.

Health physics support, such as monitoring shipment packages and SSTs and providing personnel internal dosimetry and radiation surveys as needed, is also provided to TSD from the applicable managing and operating contractor at the Albuquerque, Pantex, and Southeast Courier Sections. The TSD personnel dosimetry is provided and processed by the SNL external dosimetry program.



**TSD roles and responsibilities are generally well defined.**

With few exceptions, the roles and responsibilities of TSD personnel are clearly defined through policies, procedures, and individual position descriptions. Overall, couriers demonstrated good knowledge of their radiation protection responsibilities. Individual radiological protection responsibilities were primarily communicated to couriers through training programs.



**Figure 3. AL and TSD Organizations with Responsibility for the Radiation Protection Program**

Although duties are defined in policies and position descriptions, in several cases individuals did not demonstrate a clear understanding of some of their assigned duties. For example, the roles and responsibilities of OSHD and its interface with TSD were not well communicated by TSD safety personnel during interviews. In another example, Assistant Courier Section Chiefs, who were typically assigned as safety representatives for the section, were often either not fully aware of or did not have the requisite training or expertise to effectively carry out the safety responsibilities defined in their job descriptions. In most cases, the Assistant Courier Section Chief relied on the section training specialist and/or the section program analyst to assist in the implementation of safety programs.

## Appraisals

In accordance with the conditions of the exemption to 10 CFR 835, the OSHD performs triennial environment, safety, and health appraisals of transportation-related radiological activities. TSD and the OSHD jointly performed the last review of the TSD radiation protection program in July 1997. In addition, the AL Nuclear Explosives Safety Division conducts periodic safety appraisals of TSD operations and has performed evaluations of TSD during both during 1996 and 1997. These evaluations cover the TSD Occupational Safety and Health Program, which includes the radiation protection program. TSD also performs annual self-assessments of safety performance; these include only a review of radiation training record currency.



**Appraisals do not adequately address some aspects of the TSD radiation protection program.**

Although AL and TSD perform several types of appraisals, the appraisals do not adequately address some aspects of the radiation protection program. For example, the July 1997 joint AL and TSD review of the TSD radiation protection program did not consider some of the mechanisms for addressing employee concerns, the review of monitoring programs did not include monitoring programs at non-DOE sites (the report only discusses DOE and Department of Defense sites), and did not include sufficient observations of performance in the field (most of the activities involved document reviews). The AL and TSD review did not identify a number of weaknesses involving implementation of the TSD radiation protection program (e.g., failures to use Shipment/Vehicle Certification forms in accordance with section VI, inconsistencies between the administrative control limits in section V and the administrative control limits provided in courier training, and the inability of many couriers to differentiate between radiation and contamination).

## **Employee Concerns Programs**

TSD policy (OPS-0103-95-018 entitled “Special Agent Representative Procedures,” dated January 15, 1996) establishes procedures and protocol for identifying and communicating courier operational concerns to TSD management. Other worker feedback mechanisms, such as shipment surveys and outbriefings, are also used to gather feedback on the adequacy of TSD operations. These mechanisms tend to focus on the security aspects of TSD’s mission. However, there are several other worker feedback mechanisms related to worker safety. The TSD Assurance Branch administers the Federal Employee Occupational Safety and Health (FEOSH) program for TSD and conducts annual occupational safety and health briefings. In addition, TSD distributes safety and health information through newsletters, memoranda, required reading files, and periodic briefings (such as the annual occupational safety and health briefing), and accident lessons-learned briefings. TSD has also established safety representatives within each courier section to communicate concerns and coordinate safety issues.



**TSD’s mechanisms for gathering feedback from couriers operate at varying levels of effectiveness.**

These feedback mechanisms are operating at varying degrees of effectiveness. While TSD uses a number of different mechanisms for workers to provide feedback on problems or concerns, most couriers and first line supervisors, and some middle managers, characterized communications between TSD AL management and the workforce as flowing only from top management down and in need of significant improvement, especially in the areas of information flowdown to the workers and management feedback on employee suggestions and operational concerns. A number of the couriers and first line supervisors indicated that they rarely received satisfactory or timely answers to their questions and concerns submitted through the available means. As a result, many personnel indicated their frustration, and some have lost confidence in management’s willingness to listen to them and have given up attempting to communicate with management.

The AL associates’ employee concerns program is administered by the AL Management Review Division. The system has had very limited use by TSD personnel within the past several years. None of the TSD cases on file within the system were safety related, and most were referred by the Office of the Inspector General. Postings and other information about the program were not readily available to TSD and Ross Aviation employees, and many TSD employees interviewed by the team were not aware of the program. The program is not addressed in the annual occupational safety and health briefing given to all TSD Special Agents and Transportation Escorts. Although available to TSD personnel, the AL employee concerns program has not been an effective mechanism for raising or resolving courier concerns.



**Mechanisms in place have not assured that couriers have accurate information about the program or how to raise concerns.**

Most couriers have not seen the TSD Radiation Protection Program Document or the AL TSD Radiation Protection Program Review Report, including the couriers who participated in the AL review. In addition, communications of the TSD

Assurance Branch safety functions for administering the TSD FEOSH program, the TSD Safety Committee, and the TSD radiation protection program were ineffective. For example, most couriers and courier section safety representatives were not familiar with the TSD Safety Committee and did not know the names of the individuals assigned as the TSD Radiological Protection Manager or the TSD Safety Engineer, who serve as the points of contact for radiological or safety concerns within TSD, respectively. Further, the TSD safety engineer position had been vacant for over five months and had only recently been filled. Overall, these mechanisms have not been successful in ensuring that couriers have information about the radiation protection program or that couriers understand available mechanisms for raising concerns or asking questions.



**Many couriers feel that their issues have not been resolved.**

Contrary to the results of the most recent TSD radiation protection program review, most of the radiological protection issues and concerns raised within TSD still remain unresolved, in the view of a number of the couriers interviewed. The sequence of events associated with the bone yard at the Y-12 Plant is an example of a concern not being resolved in a timely manner. In 1988, couriers raised a safety concern involving the potential for exposure to radiation because of the time they spend in the bone yard and the potential for bringing radioactive contamination home. In 1990, AL decided to install TLD badges in the break room and around the perimeter of the area and a continuous air monitor in the break room to monitor conditions. However, the TLDs and air monitor were not installed. The changeout operation was discontinued in 1992. Although the surveys indicate low levels of radiation (at or near background), the couriers' concerns with the bone yard are understandable in light of the signs indicating contaminated and highly contaminated areas and the potential contamination hazards (identified in Section 2). In addition, a survey of the break room during 1996 identified fixed contamination, below reportable levels, on a couch and chair in the break room. Couriers were recently directed to use the bone yard again. Many couriers indicated that management has not provided an adequate explanation for or resolution of contamination concerns in this area that date back almost 10 years.

Couriers expressed similar concerns about inadequate management communication regarding other management decisions, such as the decision to remove radiation monitoring equipment from the SST convoys. A number of couriers expressed continuing concern about events that had reportedly occurred in past years, such as contamination incidents. However, the Oversight team determined that current controls for contamination are appropriate.



**Dissemination of unverified information has contributed to ineffective communications.**

Some information (including both communications within TSD and between TSD and other organizations) has not been adequately verified. This has contributed to the ineffective communications and distrust of management by some couriers. For example, recent information about the use of the bone yard was not accurate, and the internal review of the TSD radiation protection program indicated that there have been no concerns expressed about radiation protection.

## Summary Analysis



**Both management and couriers indicated that communication needs improvement.**

AL and TSD have many of the necessary radiation protection management elements in place, including clear roles and responsibilities, appraisal/assessment programs, and employee concerns programs. However, these elements are not consistently effective. Perhaps most significantly, during interviews, most couriers and some staff were concerned with poor communications between TSD management and the courier sections, and to a lesser extent among various TSD branches. The most frequently expressed concern related to the perception that management did not address concerns in a timely manner and did not communicate the rationale for decisions that affect couriers. Overall, the feedback mechanisms have not been effective and do not have the confidence of the couriers. Both management and the couriers indicated that communications needed improvement; management did not have a plan to address the acknowledged communications issues.



**Improved training and mechanisms for resolving employee concerns could improve communications in the near term.**

Addressing the communications issues, as well as the deficiencies in implementation discussed in Section 2, will require additional attention and management involvement and commitment. Improvements in the

radiation training program and additional emphasis on mechanisms for communicating and resolving concerns, such as employee concerns programs and safety committees, are potential near-term steps that can be taken. Management actions to improve procedures and ensure rigorous enforcement of procedures, such as wearing a dosimeter when required, are also needed.